(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 15 July 2004 (15.07.2004)

PCT

(10) International Publication Number WO 2004/059980 A1

(51) International Patent Classification⁷:

H04N 7/24

(21) International Application Number:

PCT/KR2003/000132

(22) International Filing Date: 22 January 2003 (22.01.2003)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data: 10-2002-0084724

27 December 2002 (27.12.2002) KR

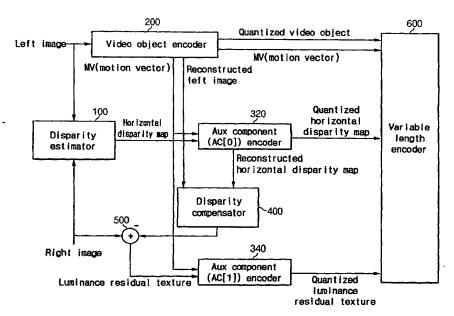
- (71) Applicant (for all designated States except US): ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE [KR/KR]; 161, Gajeong-dong, Yuseong-gu, Daejon 305-350 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHO, Suk-Hee [KR/KR]; 301, 137-11, Sinseong-dong, Yuseong-gu, Daejon 305-804 (KR). CHOI, Yun-Jung [KR/KR]; Jangbang Villa 206, 118-278, Sinseong-dong, Yuseong-gu, Daejon 305-804 (KR). YUN, Kug-Jin [KR/KR]; Hyundai Eyetell

710, 1457, Dunsan-dong, Seo-gu, Daejon 302-121 (KR). LEE, Jin-Hwan [KR/KR]; Hanwool Apt. 111-1801, Sinseong-dong, Yuseong-gu, Daejon 305-707 (KR). HAHM, Young-Kwon [KR/KR]; Hanvit Apt. 133-101, Eoeun-dong, Yuseong-gu, Daejon 305-755 (KR). AHN, Chie-Teuk [KR/KR]; Expo Apt. 208-603, Jeonmin-dong, Yuseong-gu, Daejon 305-761 (KR). KIM, Yong-Han [KR/KR]; Dept. of Elec. & Computer Eng., University of Seoul, 90, Jeonnong-dong, Dongdaemoon-gu,, Seoul 130-743 (KR).

- (74) Agent: YOU ME PATENT & LAW FIRM; Teheran Bldg., 825-33, Yoksam-dong, Kangnam-ku, Seoul 135-080 (KR).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR ENCODING AND DECODING STEREOSCOPIC VIDEO



(57) Abstract: Stereoscopic video is encoded and decoded by using the MAC defined by the existing MPEG-4 standard. The stereoscopic video is divided into one image as a single video object, and another image as auxiliary information for the image established as the video object. The auxiliary information includes a horizontal disparity map, a vertical disparity map, luminance residual texture, and chrominance residual texture, which are respectively allocated to auxiliary components of the MAC according to importance and complexity of the images, encoded, and then output as a single encoding stream.



WO 2004/059980 A1



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

 as to non-prejudicial disclosures or exceptions to lack of novelty (Rule 4.17(v)) for all designations

Published:

- with international search report
- with a declaration as to non-prejudicial disclosures or exceptions to lack of novelty

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.